THE GENESEE FARMER.

VOL. VIII. ROCHESTER, N. Y. APRIL 28, 1838. NO. 17.

PUBLISHED BY LUTHER TUCKER.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

☞ THE MONTHLY GENESEE FARMER is made up of selections from this paper, and published on the first of each month, forming, with the Title-page and index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*—Eleven copies for Five Dollars.

THE GENESEE FARMER.

SATURDAY, APRIL 28, 1838.

Cultivation of Fruit.---No. 4.

TRE CHERRY.

Cherry trees, in common with other fruit trees, are far best when raised from seed; and for this purpose the stones should be dried in the shade and then buried in earth, or buried as soon as taken from the pulp. If they become much dried, vegetation will be retarded a year, if not wholly prevented. The mazard and heart varieties are preferable for stocks on account of their straight and rapid growth. Wherever in any case it becomes necessary to employ the round fruited, sour varieties for stocks, it should never be for heart cherries, as from their slower growth they do not furnish a trunk of sufficient strength and vigor. Mazard or heart stocks, are commonly grafted standard height, especially when the round fruited varieties are inserted into them, as in such case they furnish better shaped trees. When budded standard height, the first shoot of the bud should be headed down to 3 or 4 inches, to form a better head.

Great difficulty is sometimes found in successfully grafting the cherry. This is chiefly in consequence of its not being performed early enough in spring; to succeed well the work should be done before the buds have started in the least degree. *Budding* has also been found difficult. This can be successfully practised only on thrifty stocks during their most vigorous state of growth, which is commonly in the early part of summer; the delay of a few weeks will often prevent entirely the adhesion of the bud.

The cultivated varieties of the cherry are divided into two classes; the *first*, consists of the Mazards, Hearts, and Bigarreaus, and is characterized by tallness and well-shaped and pyramidal form; by light green leaves, large and vigorous young branches, and sweet fruit, or if not sweet, rather inclining to a bitter than a sour taste. The *second class*, includes the Dukes, Morellocs, and common sour or pie cherry, and has small, irregular and compact branches of low spreading growth, dark green leaves and sour fruit. A little attention will enable any one readily to distinguish these two kinds, even when the trees and not more than a foot high.

The following are among some of the best varieties:

1. HEART-SHAPED FRUIT.

Black Tartarian.—This is a fruit of large size and uncommon excellence, and by many is considered superior to all others. The writer has measured fruit of more than an inch in diameter which was but little larger than the average size, from trees which had received no unusual cultivation.

White Tartarian.—The fruit is of medium size, and of most excellent flavor, and is even superior in quality to the preceding variety. It is also a great bearer. The variety known as the Transparent Crimea, if it differs from this, is distinguished by a shade so slight as to be almost imperceptible.

The *Transparent Guigne* is one of the best *late* cherries. The tree is of very vigorous growth, and yields abundant and regular crops; the fruit is of medium size, and when *fully ripe*, is little inferior in quality to the white Tartarian.

The *Amber*, known also by the names Graffion, Yellow Spanish, and Bigarreau of English publications, is remarkable for the vigorous growth of the young trees, and for the large size and excellence of the fruit. It appears to be quite distinct from the variety frequently known by the name of White Bigarreau, White Oxheart and Amber, the latter being of slow growth, and later in maturity.

The *Elton* is recommended as a fruit of uncommon excellence. It is thus spoken of in the London Pomological Magazine:—"This invaluable variety was raised in 1806, from the seed of the Graffion which had been fecundated by the pollen of the White Heart. Its merits can scarcely be too highly spoken of. In flavor it is considered by many as the most delicious of cherries; in beauty it is scarcely surpassed by any other; and its hardiness and productiveness are now ascertained by the experience of all who have cultivated it." It much resembles the Graffion. It ripens a very little later than the May Duke.

There is another English variety of the cherry, which has received the name of *Knight's Early Black*; it scarcely differs from the Black Tartarian, except in early maturity, the former possessing the rare merit of ripening more than a week before the May Duke. It has not been proved in this country; but should it be found well adapted to our climate, it will be a most valuable aquisition to our list of fruits.

The *Black Mazzard* is the natural species whence all the cultivated varieties of the heart-shaped cherries have sprung; the fruit is very small, black and of bitter flavor, and is therefore only to be cultivated for stocks. The *Black Carone* is an improved variety, intermediate between the Black Mazzard and Black Tartarian, and in the absence of better is considered a very good variety. It is known in some parts of Western New-York by the name *Albany cherry.*

2. FRUIT ROUND.

Early May.—The growth of this tree is very slow, and the fruit is small, and not high flavored. Its only merit is that of ripening before any other variety. In favorable seasons, it arrives at maturity in Western New-York, in the latter part of the fifth month (May.)

Early Richmond.—This fruit ripens about the time of the May Duke, (in the early part of the sixth month.) and when well matured, is a little above medium size, and is tender, rich, and juicy. It is rather too acid to be pleasant to the taste, but is very valuable for culinary purposes.

May Duke.—A number of inferior varieties of the cherry are known by this name, among uninformed cultivators; the true kind is distinguished by the following characters:—Fruit roundish, large, very dark red when mature, and flattened at both ends; flesh white with a slight tinge of red, soft, juicy and tender, with a rich flavor and highly pleasant acidity. It ripens in the early part of the sixth month (June.) In common with most other cherries, it is usually gathered and eaten when it has attained two thirds of its full size, and before its flavor is half perfected.

The *Late Duke* much resembles the May Duke, is a little larger and equal to it in quality, but ripens nearly a month later.

The *Carnation* is not equal in quality to the two preceding, but is among the best of the *late* cherries.

Holman's Duke, and *Waterloo*, are also highly recommended, among the late varieties.*

In the western part of this state, the cultivation of good varieties of the cherry has been more neglected than any other of the more common kinds of fruit; many who have made considerable effort to procure good orchards, seem never even to have seen any better than the black Carone and the Kentish red. And those who have better varieties, rarely ever witness their good qualities, from the very general practice of picking them before maturity. Cherries not unfrequently attain the *appearance* of ripeness, when not nearly of full size; and when little of their excellence can yet be perceived.

The cherry, to succeed well, should grow upon a dry, light, rich soil. It rarely succeeds well in a moist situation, and frequently dwindles and dies in a few years. Pruning has been but very little practised, and is generally not needed. English writers mention cases, however, where old stunted trees have been greatly benefitted by pruning, and speak of the absolute necessity, where it is resorted to, of protecting the wounds thus made from air and moisture by an application of a suitable composition.†

The diseases and enemies to which the cherry is subject, in Western New-York, are few and not formidable. The tree is therefore one of remarkably safe and easy culture, after it is procured. There are some varieties which are attacked by an insect which causes large excrescences upon the branches. Whenever they appear, the injured branches should be cut off immediately and committed to the fire, that the insect may be destroyed. Perhaps the greatest difficulty in the cultivation of this fruit, is the depredation of birds, especially of a small, brown crested bird, called the *Cedar Bird.* The only effectual remedy for this bird yet found, is powder and shot. They soon become suspicious and fearful, and less destructive. Small trees of valuable fruit, might be protected by a coarse cheap net thrown over them. Some of the round varieties are stung in the fruit, by an insect, in a manner similar to that of the Curculio, but this does not often produce any serious evil. J. J. T.

* Robert Manning, of Salem, Mass., who has examined and proved more varieties of fruit than any other person in America, gives in a letter to the writer of this article, the following varieties of cherries to which he has reduced his list, as affording a good course:—Black Tartarian, Black Heart, White Bigarreau, Elton, Late Duke, and Florence.

† For this, see a former number of this series of articles, on Pruning.

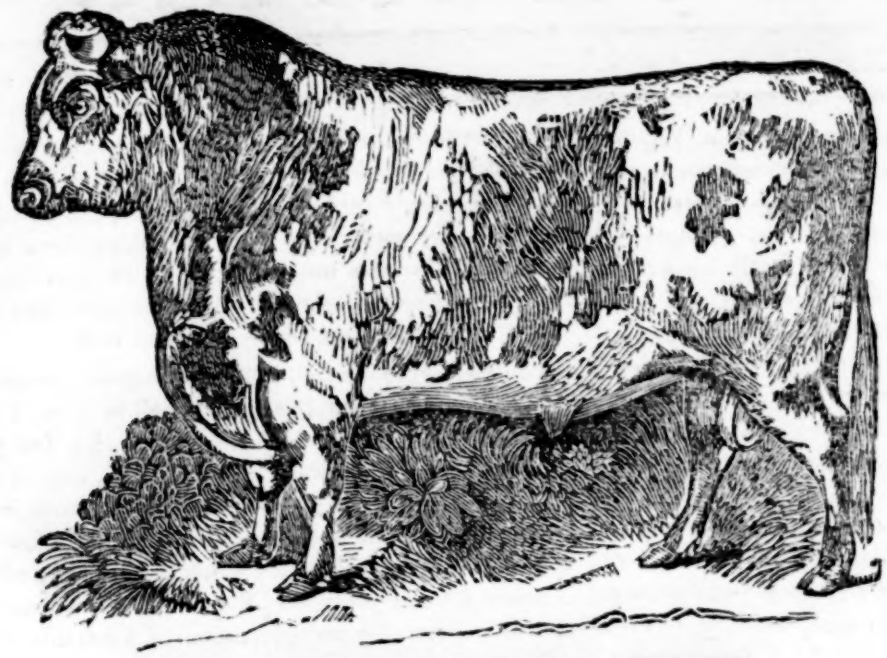
The Potato.

We have a communication from Wm. Bache, of Wellsboro', Pa. on the culture of the Potatoe, for which we have not room in this number. He says that from many trials of the different kinds of Potatoes he has settled upon the Pink Eye as the best variety for family use.—He plants the early White Kidney for early use, and generally has them fit for the table by the 4th of July. For feeding stock, he prefers the Nova Scotia Blues, as he finds them to produce better and of a more uniform size than most other kinds, particularly on wild lands. He thinks dunging in the hill a bad practice. If the manure is fermented and dry, it ought to be well mixed with the soil, and if long manure is used, it will make the potato strong and rank, unfit for the table. He always found he could get the largest, from planting one large one in a hill, without cutting. He has doubts about Gen. Barnum's 1800 bushel crop, the most he ever raised being 450 bushels to the acre. He will, however, try the General's plan this year. He has tried the experiment of cutting the tops of potatoes and curing them for hay, and spoiled his whole crop.

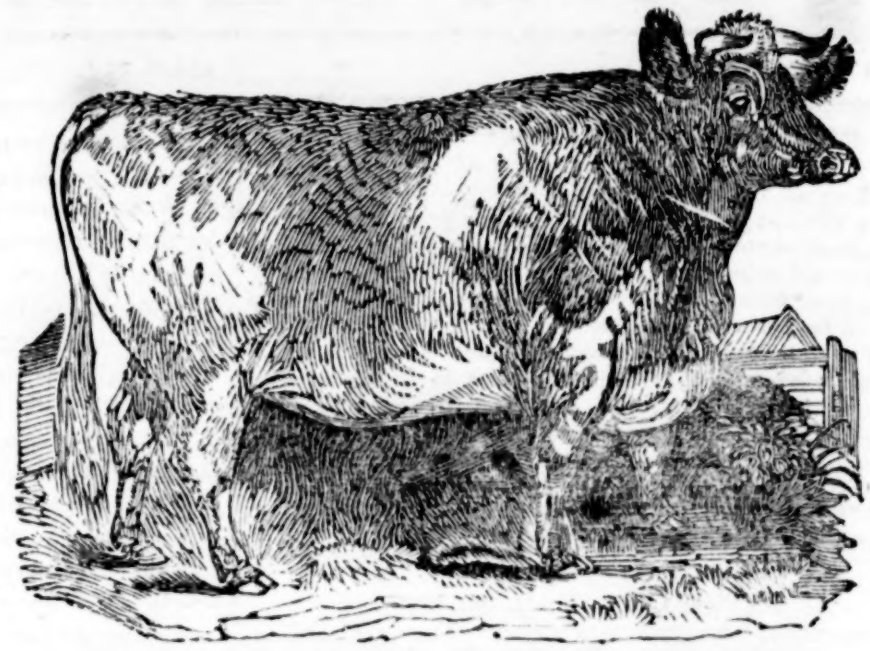
Ornithology.

In a former volume of the Genesee Farmer, was a statement of some facts to show the fallacy of Nuttall's opinion on the flight of migratory birds. The following extract from HUDSON'S *last voyage*, written by Abaevk Pricket, in the year 1610 or 1611, in the Collections of the N. Y. Historical Society, 1811, p. 164, furnishes additional proof.

"Then in their places came divers sort of other Fowle, as Swanne, Geese, Duck, and Teale, but hard to come by. Our Master hoped they would have bred in those broken grounds, but they doe not; but came from the South and flew to the North, further than we were this voyage; yet if they be taken short with the winde at North, or North-west, or North-east, *then they fall and stay till the winde serve them*, and then flye to the North."



LORD ALTHORP'S BULL, FIRBY.
Improved Short Horn.



LORD ALTHORP'S HEIFER, CLARION.
Improved Short Horn.

CATTLE.—No. 1.—Short Horns.

No apology can be necessary for calling the attention of the readers of the Farmer, particularly those of the western district of New-York, to the subject of cattle; and the necessity of adopting the best breeds introduced from abroad, into our pastures and our dairies. It costs but little more to keep a breed of cattle that will weigh from seven to ten hundred at two years old, than it does to keep a kind that must be kept till they are three or four before they will reach the same weight. Size, beauty, quickness of motion, rapidity in fattening, and great milking qualities, are rarely found combined in the same animal, or the same breed; and one of the reasons, perhaps the greatest, is, the attention of the breeder of cattle to a single excellence, by which other valuable properties are lost sight of, and perhaps destroyed. "It is unquestionably true, that every perfection in cattle—whether it be one of form, of quality of flesh, of disposition to fatten, or to yield milk—can be promoted and retained solely by the breeder's devoted attention to his particular object; and if one object be allowed a paramount importance in the breeder's estimation and practice, other objects will suffer in proportion as they are neglected."* But it does not hence follow that a breed of cattle may not be produced which shall combine the greatest number and greatest degree of good qualities which can be compatible with uniform excellence; and in the opinion of the best judges and breeders of cattle, both at home and abroad, the point of uniform goodness in all the qualities desired to make cattle valuable, has been nearer approached in the *Improved Short Horns*, than in any other breed.

In our remarks on the subject of cattle, we shall avail ourselves of the best authorities on the subject within our reach; and owing to the enterprising spirit and good sense of citizens of our own and other states, we are not without as fine specimens of the best improved breeds as can be shown abroad, to direct the opinion and inform the judgment; but in comparing the several breeds, we must look abroad for estimates founded on actual experiment, and as a writer on cattle, none stands higher than the late Rev Mr. Berry, who by his skill in selecting, and judgment in breeding, has raised the Short Horn to its present proud pre-eminence.

It will not be necessary here to trace the history of the several breeds from which the Short Horns in their improved state descended; those who wish for information on this topic, are referred to the 4th volume of the Gen. Farmer—to British Husbandry—British Cattle—or the masterly treatises of the Rev, Mr. Berry. It is enough to state here, that Mr Colling is considered as the founder of the *improved* Short Horns—that this improvement was principally effected by the means of his celebrated bull 'Hubback'—and, in the language of Mr. Berry, "As we have at present no superior horse on the turf, which does not boast the blood of the Godolphin Arabian; so it may be asserted that we have no superior Short Horns, which do not claim descent nearly or remotely, from Hubback."

In breeding his cattle, the great object of Mr. Colling was to retain the many excellent qualities of the old Teeswater, or Short Horned Durham cattle, while he reduced their ungainly size, and gave symmetry to their form.—This he succeeded in doing, by a cross with the *Polled Galloway*, a breed with deep massive bodies and short legs, and well calculated to bring the tall Teeswaters nearer the ground, and add weight, firmness and hardiness. "He was much favored by circumstances in promoting his object, which was to take one cross, and then breed back to the Short Horn—the only course, by the way, in which crossing can be successfully adopted. To breed from the produce of a cross *directly among themselves*, will lead to the results which have induced many persons, without due consideration, to believe conclusive against crossing; but to take one cross, and then return and adhere to one breed, will, in the course of a few generations, be found to stamp a variety with sufficient certainty."*

The principle of crossing here laid down, we consider of very great consequence; as it is the only one by which a good quality can be introduced and made permanent in the variety. It is the only one by which the excellence, be it form, maturity, or milking, can be rendered habitual in the breed, and become, instead of an accidental quality, a part of the constitution, and typical of the race. Attention here, can perpetuate any desirable quality to the greatest extent, and the experiments of Mr. Culley, Mr. Berry, and others in England, have demonstrated the soundness of the theory. Early maturity and aptitude to fatten, were the grand objects of the early breeders of the Short Horns, and on these points they succeeded to a perfection which left nothing to be desired. Early maturity is the distinguishing characteristic of the Short Horns; and their capacity to continue growing, and at the same time attaining an unexampled ripeness of condition at an early age, has excited the wonder, and obtained the approbation of all not blinded by unworthy prejudices. To illustrate this property of early maturity, and show the great advantages gained by adopting a breed affording such results, we shall give from Mr. Berry, a few instances of animals fitted for the butcher, their age and weight.

A steer, bred by Col. Cooke, (of Ouston, near Doncaster,) fed on potatoes and straw, was slaughtered when 2 years and 22 days old; his quarters weighed 72 stones, (or 576 lbs.)

Mr. John Rennie produced at the East Lothian Ag. Soc. meeting, a steer aged two years and four months, whose four quarters weighed 153 stone 7 lbs. (1231 lbs.) Also, a steer aged three years and six months, whose quarters weighed 1359 lbs. and the tallow 241 lbs. The same gentleman also exhibited a steer between 18 and 20 months old, the quarters of which weighed 118 stones 1 lb. (944 lbs.)

Mr. Robertson, near Berwick-upon-Tweed, furnished Mr. Berry with a statement of a number of Short Horns fed by him on turneps, weight as follows:

A steer, three years and a half old, four quarters, 1862 lbs., tallow 294 lbs.

A steer, 3 years 10 months old, four quarters, 1736 lbs., tallow 238 lbs.

An ox, four years and a half old, four quarters, 1890 lbs., tallow 295 lbs.

Mr. Arrowsmith entered for a sweepstakes, a twin heifer calved in April, to be shown in June when she would be two years old. She was fed through the winter on turneps and hay, with 400 lbs. of oil cake, and was turned out to grass in May. On the 23d of July she weighed 58 stone, having gained 30 stone in 30 weeks. (Weight, 812 lbs. Gain in 30 weeks, 420 lbs.)

These instances will demonstrate their peculiar character of fattening early, and that they may be made to combine the qualities, hitherto considered incompatible, of good feeders and good milkers, the experiments of Mr. Berry, as well as of breeders in this country, clearly show. It was found, as the qualities of the improved cattle became more developed, that by a too exclusive regard to form and propensity to fatten early and easily, the important one of good milking had been neglected, and that in this respect they were inferior to some other varieties of English cattle. The qualities of form and fattening had become habitual; the object now was to engraft on these the property of good milkers. In this improvement, which was completely successful, Mr. Berry took the lead; and as the principle he adopted is capable of application in other cases, it may be well to briefly sketch his process.

For nearly 100 years, a variety of the Teeswater on the Tees had been noted for its superiority, particularly as milkers; and as in form and propensity to fatten, they bore a strong resemblance to the Short Horns, Mr. Berry determined to select an animal of this breed for his experiments. He accordingly chose a bull from one of the best milkers in the district, and whose properties in other respects were such as to justify the decision. The result verified the correctness of the theory; and proved, that without materially diminishing their value in other respects, their properties as milkers might be greatly enhanced. Crosses which have had this object in view have since been repeated, and where conducted on correct principles, have rarely failed of benefit. "While on this subject, it is, however, proper to observe, that the excessive quantities of milk obtained from the unimproved Durhams or Short Horns, are seldom or never obtained from the improved; but a moderately good milker of the latter kind will be found to yield as much *butter* in the week as one of the former; the milk being unquestiona-

* Rev. Mr. Berry's Treatise on Short Horns.

* Mr. Berry, Brit. Cattle.

bly of very superior quality; and indeed it was likely such should be the case, and that the change in the animal economy which leads to an excessive secretion of flesh, should be productive of other rich secretions." (British Cattle.)

It was by cautiously adopting the principle above laid down, that the London dairies have been furnished with the superior animals for which they are distinguished. These cows were formerly the Yorkshire unimproved short horns, and on account of their milking qualities were great favorites with the dairy or milkmen of the metropolis. They had one serious fault however, and that was the difficulty of fattening; and after their milk season was past, the dairyman was obliged to dispose of them for what he could get, as feeding them long enough to make beef was with him out of the question. Some of the best of these Yorkshire milkers were crossed with the improved short horn bull, and the breed thus produced retain most of the grazing or fattening qualities of the improved, while the excellences of the old breed for the pail, are unimpaired. Whether milked only a year, or, as is sometimes the case, three or four, as soon as they are dried, they fatten as rapidly as the best of the improved breed.

We regard the establishment of these principles in regard to crossing, and they have been adopted with regard to the Devon as we shall see in another paper, as of great importance, and as proving most conclusively the engrafting of any desirable quality, and then rendering it constitutional and permanent. As a proof that the improved Short Horns are not inferior in dairy properties we give the following statement from the work on Cattle published by the Society for the Diffusion of Useful Knowledge. The experiment was made by Mr. Calvert of Sandysike, the milk of the cow put by itself, and an accurate account of the butter produced weekly, kept for the time stated. Each week gave as follows,—7, 10, 10, 12, 17, 13, 13, 13, 15, 16, 15, 12, 13, 13, 13, 14, 14, 13, 12, 12, 13, 14, 12, 10, 10, 8, 10, 9, 10, 7, 7, 7. Total 373 lbs. of butter in 32 weeks. She averaged 20 quarts a day for 20 weeks; the greatest quantity 28 qts. a day. The pasture was by no means of a superior quality. This instance of dairy excellence, is pronounced 'not a singular one,' in the work alluded to; but we believe all will allow that such products cannot be found any where except among the very best cattle. Instances of great yields both of milk and butter for a single week, are on record in this country, from the improved and the common kinds of cows, but we have met with no account properly authenticated, equal to the above, the season included.

Some farmers in England have asserted, and the opinion has been advanced in this country, that the Short Horns are not fit for work. The correctness of this may well be doubted. We know of no instance where the improved stock have been used as *oxen*; they command too high a price as bulls, to be condemned to the yoke; but instances have occurred in which the bulls have been worked on the farm, and as was to have been expected from thier disposition, proved perfectly docile and manageable. To the above objection an English writer replies, —"They work admirably; but surely cattle, which are fit to go as profitably to the butcher at two years old, as any other breed at three or four, ought never, as a general rule, to be placed in the yoke No beast, in the present advanced state of breeding, ought to be put upon a system which arose out of the necessity of obtaining compensation by work for the loss attending a tardy maturity."

The portraits placed at the head of this article are those of Lord Althorp's celebrated bull, *Firby*; and his heifer, *Clarion*; both animals of the best blood and points, and will render unnecessary any comment on their form. The colors of the Short Horns, the *improved* variety, are red or white, or a mixture of the two, combining in endless variety, and producing very frequently a fine effect. The white, it is very probable, they obtained from an early cross with the white or wild breed; and wherever this color shows itself, it is accompanied with a red tinge, more or less, on the extremity of the ear; a distinctive character also of the wild cattle. *No pure improved short horns, are found of any colors but those above named.* This should be remembered; for there are short horns of the unimproved kinds, black, pied, or black and white, blue, and dun, and of all shades, and there can be no doubt that multitudes of these inferior animals, or crosses with them, are finding their way to market as the pure improved breed.

We may add here, as giving some hints that may be useful in the selection of dairy animals, a maxim much relied on among the London dairymen, and some doggrel lines, descriptive of a good cow, from the Farmer's Magazine. "A milch cow, good for the pail as long as she is wanted, and then quickly got into a marketable condition, should have a long and rather small head. *A large headed cow will seldom fatten or yield much milk.*" Of a good cow it may be said—

She's long in her face, she's fine in her horn,
She'll quickly get fat, without cake or corn;
She's clean in her jaws, and full in her chine,
She's heavy in flank and wide in her loin.

She's broad in her ribs, and long in her rump,
A straight and flat back with never a hump;
She's wide in her hips, and calm in her eyes;
She's fine in her shoulders, and thin in her thighs.

She's light in her neck, and small in her tail,
She's wide in her breast, and good at the pail;
She's fine in her bone, and silky of skin—
She's a grazier's without and a butcher's within.

To the breeders of cattle, the Herd Book, a volume commenced by Mr. Coates, and enlarged by new additions almost annually, is indispensable. As the Improved Short Horns are a breed created within the memory of man, and as their value is mainly depending on the purity of their blood, a clear and unbroken pedigree is necessary for the security of the purchaser, and this may in all cases, where such blood exists, be traced in the Herd Book. Not only the pedigree complete of the English pure Short Horns may here be found, but that of the animals imported into this country from that, who have any title to the name may be seen at once. Like the British Heraldry, its use is to detect impostors and expose pretenders, and for this purpose it is well adapted.

If the Improved Short Horns are to be extensively introduced into this country, it will be in the same way and for the same reason that all our other improvements are adopted. It will not be in consequence of any abstract or theoretical reasoning on their merits, but because they are found on experience to be more *profitable*, than any other stock. Though what may be called an artificial breed, it is already one of the largest in the world; and it possesses one advantage, which perhaps no other breed possesses in an equal degree, which is this, that great numbers of skilful and experienced persons have, for a long series of years, not only adopted this breed in preference to any others, but have selected out of itself the animals that they deemed of superior quality to breed from them alone, so that now, it may be called a picked and chosen race, from which all beasts having any imperfection have been carefully excluded.

The man who introduces this valuable breed of cattle into any neighborhood of farmers, is a benefactor to the community, and should be regarded as such. Prejudice may decry, and ignorance may sneer, but we know the good sense of farmers will not always slumber, and in the approval of the intelligent, and the certainty of ultimate profit, he may find his reward.

ROCHESTER SEED STORE.

Messrs. Reynolds & Bateham, the proprietors of this establishment, have just published a new Catalogue of Garden, Field and Flower Seeds, Green House Plants, Books, Implements, &c. with practical directions for the cultivation of vegetables, flowers, &c., making a pamphlet of 60 pages. We rejoice at this evidence of the patronage which the public are extending to this establishment, conducted, as it has been, in a manner well calculated to subserve the interests of the farmers of Western New York.

MILLET.

We have received the following enquiries from a subscriber near Niagara, U. C.

Mr. L. Tucker—I am desirous of ascertaining through the medium of the Mon. Gen. Far. whether Millet is cultivated in the western part of the State of New-York, in what manner it is cultivated, and with what success? My motive for the enquiry, is, that I propose to substitute millet for corn, which for the last three years, has not ripened in this country. But corn has this convenience, that it can be grown upon newly dunged land, and I wish to learn whether Millet also will grow upon land newly manured."

Millet is and has been grown in Western New-York, but its cultivation has been principally confined to the southern tier of counties, and even there has never been extensively introduced. So far as our knowledge extends, millet as a substitute for fattening animals by taking the place of corn, has not ranked as high, or been considered as a crop equal in value to barley or buckwheat. Where it is required as fodder, the case may be different; as when cut at the proper season it furnishes a winter food excellent for cattle, and nutritious for horses. A favorable opinion of this plant has been expressed by individuals in New England who have cultivated it for years. By one of them the medium crop is stated at twenty-five bushels an acre and a ton of good fodder. He considers the seed as of even more value, as food for domestic animals, than an equal quantity of corn. A letter from the Hon. Bushrod Washington on the culture of Millet, states that he grows it extensively for seed and for fodder, cutting the grain when the earliest part of the seeds are ripe, and thus secures from fifteen to twenty bushels of seed an acre, and a quantity of the very best fodder. In one instance he had forty tons from sixteen acres, equal to the best cured hay.

With regard to the cultivation, Judge Powell in a letter to the Penn. Ag. Soc. says:

"Millet succeeds best on light land, and requires as much strength of soil as is necessary to produce heavy oats. I have not seen either in Europe or America, any green crop which so largely rewards accurate tillage and plentiful supplies of manure. I have sown it from the first of May to the 20th of June, and have invariably obtained more fodder than could have been had from any grass under similar circumstauces."

A writer in the N. E. Farmer, says:

"The land for the growth of millet should be as well prepared, as for any other kinds of small grain. The seed to be sown by the last week in May or the first week in June. The quantity of seed should vary according to the soil, and the purpose for which it is to be grown. On a strong well cultivated soil, if the object is a crop of fodder, from two to three pecks may be sown per acre; some use even a larger quantity. If it is wished to procure a heavy growth of grain, a smaller quantity should be sown, say from one to two pecks. To cover the seed, a very light harrow, or what is still better a bush, must be used. This leaves the surface evener and does not bury the seed too deep."

A correspondent of the Farmer & Gardener says:

"One advantage in the Millet is, that it possesses a quality peculiar to itself, and differing from every other grass or plant with which I am acquainted: to wit, when the *seed* is quite *ripe enough* for sowing, or for any purpose to which it is ever applied, the stalks and blades are sufficiently green and nutritive for the best provender for cattle or horses, and they are very fond of it."

As regards the growth of millet on highly, or newly manured land, the same rules will apply to it, that govern the growth of other spring grains or grasses on such soils. Generally in such cases there will be too great a growth of straw at the expence of the grain, and this where grown for fodder could be no objection. Where this is the object, Judge Powell as we have seen recommends plentiful supplies of manure. Where seed is the object, there can be no doubt, it would be better as in the case of other spring grains, to have the manure applied to a previous crop, or corn or roots, though in a light soil, and with a smaller quantity of seed, per acre, it is probable fresh manuring might not prove any very serious injury to the seeding of the millet. The cultivation of any crop that promises in any good degree to be a substitute for corn, is a matter of importance, and we should be pleased to learn the result of our correspondent's experiment.

COMMUNICATIONS.

Management of Hard-Pan Soils, or Grass Lands.

We believe it a settled principle, in all the present approved systems of agriculture, that to produce the grasses or herbaceous plants, commonly used for feeding cattle and sheep, it is necessary to plough and cultivate the land occasionally, and would be, if our object was the *gramineæ*, or food used for the sustenance of man. This doctrine, it is true, is not the doctrine popular among that large class of farmers who have many to-morrows in their calendar; but it is, we apprehend, the only system that will furnish us with profitable crops. We admit, in its fullest extent, the position that grasses being generally cut before ripening their seeds, do not exhaust the soil of its productive power as much as grain; and may, therefore, be continued from year to year without the same amount of injury; and we are willing to go further, and admit that in cool and moist climates, grasses adapted to the soil, may be continued by top dressing with calcareous matter and manure, for a succession of ages; but we greatly doubt whether it pays the expense, and in neither case is it as productive as in a course of alternate husbandry. Fields which have been long continued in grass, do not indeed become entirely naked and devoid of vegetation, even with close pasturing, because nature exercises more kindness and care over our race, than to permit the total destruction of the means of subsistence; and she, therefore, supplies other kinds of grasses than those we cultivate, mingled with all the weeds and rubbish of the neighborhood. And we can aver with still greater certainty, that the grasses produced without ploughing and tillage, will never compare in nutritive properties with clover, or the other grasses commonly used in a course of alternate cropping. It is indeed a matter of deep regret, that in the vast variety furnished from the magazine of nature, our knowledge of the most nutrient herbage is exceedingly limited; but it is not the less our duty to apply what knowledge we possess to useful purposes. We know that clover, orchard grass, and some other varieties, which can only be produced by tillage, have a tendency to fatten cattle, and that all the grasses having that tendency in the greatest degree, are artificial or cultivated, and not the natural productions of the soil. The former do appear when first sown, and when the roots have fresh pulverized earth to shoot in, and they would entirely destroy or supersede the latter, but the trial comes when they have both been in the same pasture or meadow several years, when the fibres from long growth are matted together, and the cultivated grass has met with powerful neighbors to dispute every inch of ground. We see that if orchard grass or clover, if left to defend themselves under such circumstances, are very soon overpowered—in a few years they become sensibly diminished, and plants of a hardier race, or that are more congenial to a close and compact state of the soil uniformly take their place.

Grass lands, on this side the Atlantic, when continued long in a state of sward, become filled with such a multifarious, incongruous, heterogeneous mass of plants, that it is a perversion of language to call them grass; red-top, cow-grass, rib-grass, quack-grass, goose-grass, cow-slips, butter-cups, daisies, dandelions, strawberry-vines, and many other tyrannical usurpers fill the land, which, under the alternate system, would be occupied with the most beneficial and nutritious food. We read sometime since in a British publication, a fact showing that we are not speaking at random, when we alledge the same results from similar causes in England, where the lands are continued in that state for hundreds of years, at a heavy expense to the proprietors, of manuring, weeding and dressing. Thomas White, Esq., a resident of the county of Norfolk, with a view of ascertaining what kinds of food were growing upon his sheep pasture, which on a superficial examination, appeared filled with white clover, at the suggestion of the celebrated Bakewell, who told him his pastures did not furnish nutritive food for his flocks, procured from nine different spots as many different pieces of turf, dug up about six inches square; he planted them in his garden, and in an incredibly short space of time found that they had respectively produced as follows:

No. 1.	14	different	kinds	of	grass and weeds.
2.	5	"	"	"	"
3.	10	"	"	"	"
4.	3	"	"	"	"
5.	7	"	"	"	"
6.	5	"	"	"	"
7.	9	"	"	"	"
8.	6	"	"	"	"
9.	15	"	"	"	"

Now, if these facts are admitted, and we see no reason to doubt them, we arrive at the conclusion, that grass lands must be ploughed, and the artificial or cultivated grass seed supplied, or the annual loss must be continually increasing. If it *must* be ploughed, we consider the whole argument conceded; because, whether fit for grain, for root crops, or for nothing at all, the expense of ploughing is incurred, and surely some crop ought to be attempted. (*a*)

In the cultivation of the soil, the Bountiful Giver of good permits us to possess and enjoy his benefits, although claimed for their exclusive use by the other members of the family. We have never yet planted Ruta Baga without obtaining over 1000 bushels to the acre; and thanks to General Barnum, we are annually raising from 5 to 700 bushels of potatoes from the same extent of surface. Our wheat crop has never yet failed upon our turnep or potatoe ground, nor even upon clover sod when properly prepared and *limed*, and we want no better illustration of the utility of our plans, than the one drawn from the Norfolk system of Husbandry, or proof of the natural adaptation of our lands to the purposes for which we have used them.

We are asked to furnish a mode of changing the texture of the soils under discussion, and of rendering them friable and productive; it would better have suited our notions of procedure to have first established the fact that they required alteration; and we ought, at least, to have been furnished with an analysis before we were called upon to name the constituents that would supply the deficiency. (*b*) As, however, it seems to be admitted that in parts of Cayuga and Tompkins, the necessity for making any change does not exist, because the heavy clays of those sections are already filled with lime and siliceous matter, which make them crumble to pieces when exposed to the influence of the atmosphere, the request may be considered as already answered; if lime and sand have this effect, the object is accomplished; if any deficiency of these essential earths exist in other places, supply them. Our analysis shows, as others probably would show, a deficiency of the lime but not of the sand; this deficiency we are all busily engaged in supplying, and we should be exceedingly gratified if the Editor of the Farmer, or any of his correspondents, would enable us to compare our own analysis with the southeastern part of Cayuga and Tompkins counties, where they are not modified by the proximity of the lake.

We have no objection to the term 'indurated clay,' nor any doubts of the existence of such a substance; but we doubt the propriety of its application to any considerable portion of the surface soil, of New England, New-York, or the northern counties of Pennsylvania; 'indurated sand' would be quite as near the truth. That there are such spots, of very limited extent, is probable; but the term 'hard-pan lands' is applied, with few exceptions, to all the lands having a retentive subsoil, whether that subsoil is composed of argillaceous materials, or of cemented sand and stones, and very frequently when the surface soil contains no injurious proportion of either the one or the other; and this is especially the case when this subsoil is within two feet of the surface.

We may, perhaps, be exposing our ignorance, (*c*) but we must frankly acknowledge, that we have never known such a substance as hard-pan, or if it is a more philosophical expression, a mixture of indurated clay and sand so near the surface, as to impede the operation of the plough, excepting always immediately under the cradle knolls, which in New-York and northern Pennsylvania deface the surface of some of the finest lands in America. If there is any considerable body of such lands, the cultivation and improvement of them must depend upon their constituents, and ought not to be attempted without ascertaining what they are.

We have always attributed the existence of hard-pan under such knolls, to the circumstance of its being placed beyond the reach of frost and solar heat; nor have we known it to continue long in possession of its indurated properties, or even its name, after being exposed any considerable time to their pulverizing power, but ultimately becoming friable and absorbent. This desirable result would unquestionably depend upon its constituents, and is greatly facilitated by the addition of lime. A very intelligent man at our elbow, who is perhaps too much given to generalizing his thoughts and expressions, and who may perhaps attribute too much to the influence of frost and caloric, is firmly of the opinion, that if we were deprived of their aid, the whole country, surface and subsoil, would become 'hard-pan.' He draws this conclusion from a careful examination of the upper and lower stratum, and the operations of heat and cold upon the latter. We could furnish a large amount of evidence, that the hardest of the hard-pan, when thrown up from the bottom of cellars, wells and ditches, and mixed with 10 per cent of lime, or any other substance calculated to loosen its tenacity, has become more permanently productive than the vegetable mold around it; and we are convinced that many of those subsoils, where they do not contain more than 20 to 25 per cent of alumine, if turned up in the fall, and not worked in the spring until fully dry, become very soon sufficiently pulverized to produce almost any kind of crop. This treatment we know has been successful when applied to the upper soil, which seldom contains more than 15 per cent of clay, and hardly ever less than 70 of sand.

Our advice, then, to the occupants of hard-pan lands would be—if your land is too wet, drain it; if it is too dry, moisten it with applications of gypsum and ashes; if hard and difficult to work, lime it; but never hesitate to plough it when it begins to show a diminution of the crop. It *will* bear potatoes, ruta baga, and every other production necessary for sheep and cattle husbandry; if clovered and limed, it will bear ploughing, fallowing, and alternating as well as other stiff soils; every succeeding crop will be improved by the green sward being ploughed under, by increasing the absorbent power, and diminishing the cohesion, by pulverizing and opening the land to gaseous and atmospheric influence; and if it will bear nothing but white clover, (which we must be permitted to say is an unnatural partiality,) the succeeding crops will pay the expense three fold. This rule, however, must not be applied to land bearing good crops; it is a folly to plough a sward yielding two or three tons per acre in hopes of obtaining a better. HOLKHAM.

NOTES.

(*a*) There certainly should be some crop not only attempted, but grown, in such cases, and we will inform Holkham how some farmers in New England, who are occupants of hard-pan soils, and who cannot afford the heavy expense of procuring lime to change their lands, manage, when they wish to renew their grasses for mowing or for pasture; and we have known the same method adopted in this state, under the same circumstances, with success. The ground is well manured on the surface, and then the turf is turned carefully and completely over, well rolled down, a light harrow passed over the surface until the dirt is loosened and the interstices all filled, (brush is sometimes used instead of the harrow;) on this surface, so smoothed and leveled, the oat, barley, or spring wheat is sown, and with this grain the grass seeds required to renew the turf and furnish a new vegetation, free from weeds or foul matters, are put in. Where materials are at hand for altering the character of the soil, and rendering it friable, such as lime or sand, the foregoing may not be the best methods of treating such soils; but that they may thus be kept in good nutritive grasses without frequent or long continued ploughings, does not admit of a doubt.

We may remark here, that if foreign authorities could be allowed to settle a question of this kind, the evidence in favor of permanent pastures or mowings on such lands would be decisive. "Grass lands on tenacious clays, or heavy loams, when brought, in a succession of years, or perhaps of ages, into a state of great productiveness, cannot be ploughed up without the risk of great injury, and are more profitable in the production of herbage than they could be in grain." (Loudon.) Marshall affirms, "that permanent pastures feed cattle to a greater weight; that the grasses are more nutritive both for sheep and cattle; that milch cows fed upon them give richer milk, and make more butter and cheese; that the herbage is sweeter and more easily digested; and that such permanent grass lands yield a large profit at a small expense."

(*b*) Holkham is right here; and nothing but inadvertence prevented the request being accompanied by the following analysis of two kinds of soil, one of loam, and the other of hard-pan, both from different parts of the same field. On the loam, the hard-pan is 18 inches below the surface, and as the field has been frequently sown, on this part wheat or clover has never failed, or frozen out. The hard pan part has been cultivated the same as the other, but wheat nearly always fails, and red clover always is frozen out. Heavy oats have been grown upon it, but roots of no kind will succeed well upon it, or similarly constituted soils. In this part the plough uncovers the hard-pan.

Loam.		*Hard-pan.*	
Silica	69	Silica	53
Alumine	15	Alumine	31
Carb. Lime	6	Carb. Lime	8
	90		92

(*c*) We read this remark of Holkham to an intelligent farmer, who said that he had acres where the plough would uncover the hard-pan at the ordinary depth of ploughing, and that Holkham must be very little acquainted with the argillaceous region of New York, not to have observed numerous instances of the same kind. We do not attribute this mistake of our correspondent to ignorance; but to a forgetfulness of the difference in the geological structure of the argillaceous zone of Western New-York, and the sandstone formation of the southern part. The reports made by the gentlemen employed in making a geological survey of this state, would have refreshed his memory, and pointed out to him the source of some of his misapprehensions.

We are somewhat surprised, that Holkham should have demurred at our recommendation of altering the texture of clay or hard-pan lands by the addition of sand. We proposed this method, because we knew it had been successful in England;—we had seen its beneficial effects on the tenacious clays of Albany Co.—we had tried on our own farm the addition of sandy loam to hard-pan, with the most decided and lasting benefit,—and we have read in the 4th vol. of the Gen. Farmer page 381, the following from an authority that we presume H. will not dispute. "Silex is probably the best mixture that can be applied on a farm consisting chiefly of alumine, because it is by far the cheapest, and few farmers can afford to apply other manures in sufficient quantities to diminish the cohesive, and increase the capillary attraction to a proper extent, but when the sand is well mixed with the clay, the soil is prepared for retaining what further manures may be applied."

It was our intention to have accompanied this paper with some remarks on the points in which our correspondent differed most from the opinions advanced by ourselves, particularly the nature of our hard-pan soils, and the kinds of grass best adapted for the culture of such soils, with the reasons for such preferences; but the above analysis compared with Holkham's, will show the essential difference between his hard-pan and ours, and render apparent the necessity of a somewhat different treatment. As the influence of the substratum on the character and quality of the soil formed above it, does not appear to be generally appreciated by farmers; and as the Western District is by nature divided into zones of remarkable regularity which exhibit this influence most clearly, we may at some future time endeavor by description and analysis to show these differences, and their effects. The necessity of a proper attention to subjects interesting to all, in a periodical like ours, and the space already occupied by the subject of soils and hard-pan, will prevent for the present the prosecution of our purpose.

Rearing Calves.

Mr. Tucker—The opinions of farmers, as to the best method of rearing calves are various. Some contend, that the way nature has directed is the best; and of course let them run with the cows till they are three or four months old. Others contend that the better way is, to take them from the cows when they are about a week old and "raise them by hand." The cost in both cases ought surely to be taken into consideration. In the first instance the butter or cheese made from the milk would amount to more, in four months, than the value of the calf at that age. In the latter, the proceeds of the milk are nearly obtained independent of the rearing of the calf. This can be established on unquestionable authority. Then there is a very great balance in favor of the last method.

That the calf that runs with the cow four months, will somewhat exceed in growth and proportion, the one reared by hand is readily granted. But after that period it is taken from the cow and has to graze and seek its own living. Here a change of diet takes place, it shortly becomes stunted, its growth is checked, and this too at the very period when it ought to be in the most thriving condition. The one reared by hand becomes more and more accustomed to food, continues gradually to improve without receiving any check in its growth, so that, when winter arrives, it is in far better condition than the other.

There are different procedures in preparing the mess for the calf. Each one has his favorite plan. One "mixes with a small quantity of milk a portion of boiled potatoes and fine bran." Another "boils the milk and lets it stand till it cools to the temperature of milk from the cow." The plan most generally adopted (and perhaps the best) is, to let the milk stand 12 hours, at first, when it is skimmed, heated to the temperature of milk from the cow, and a handful of shorts or flour added to each calf's mess. Four or five quarts, at first, is a proper quantity. This is to be moderately increased as judgment can best direct. After four or five weeks whey, with a small quantity of shorts added, can be given with equal success. Calves raised in this manner are more gentle and docile than when they run with the cows, and can be better and easier managed through the winter, and most generally ever afterwards. Another very important consideration is they soon forget their mothers, and the trouble of keeping them separate during the fall and winter is dispensed with. Cultor.

Cayuga Co. April, 1838.

Early Potatoes.

Mr. Tucker—In the spring of 1836, a friend of mine gave me some early potatoes, by the name of Fox Whites. He brought them from New Brunswick. I planted them, and find them to be a good potato to eat, and they yield well. If they are planted early, they will be fit to dig by the fourth of July. If planted on good ground, they will yield as well as any other potato. Much more might be said about these potatoes, but a short story is the best.

John S. Pease.

Sheffield, Mass. April 9th, 1838.

Large Crop of Corn.

Mr. Tucker—I will give you an account of a piece of Corn, I cultivated last season. The ground had laid in pasture seven years. It was thinly spread over with fresh stable manure, and on the first of May it was turned over very smoothly, and harrowed lightly till all the crevices were filled. On the 5th of May it was planted two feet and half one way and three feet the other, with the common eight rowed yellow corn, tarred and rolled in plaster. It germinated readily, and gave a healthy, promising appearance through its whole stage of growth. We hoed it, or went through it, twice, and stirred the earth thoroughly, destroying all weeds; the second time pulled out all but four of the healthiest and thriftest looking plants in each hill. I dispensed with the old fashioned custom of "hilling up," as not only useless and unnecessary but fatal and injurious in its consequences. From am easured half acre 103 bushels of ears were produced.

R. H. Sheldon.

Brutus, March, 1838.

Replanting.

More or less corn, is pulled up by crows, or eaten by worms, every spring, which seldom if ever is replanted, and the crop is thereby somewhat diminished. The field is made up of hills and every one produces its proportionate part, which parts taken together constitute the whole crop, and every one that is left unplanted is a loss of that part.

Last spring I planted one acre and a quarter of corn. The crows and worms destroyed a share of it after it was too late to replant it to corn. I then planted what was missing to potatoes. But when I came to hoe my corn I discovered a number of hills were yet missing, which I planted to early White and China beans. In the fall I procured,

30 bushels of potatoes worth....$7,50
1½.....beans,.....1,50 $9,00

So much for replanting. I also obtained one hundred and eight bushels of ears of corn, besides a number of loads of pumpkins. Cultor.

Cayuga Co. April, 1838.

Feeding Lambs—Query?

Mr. Tucker—I had the misfortune this winter to have about twenty lambs dropped in the coldest weather in February. I had a comfortable sheep house for common weather, but the thermometer at a little above zero, if any, chilled the lambs very soon. I fed them farrow cow's milk and pepper. All died soon, which were so fed. I obtained some new milch cow's milk, and fed that in same manner, not one so fed died.

I should like to enquire of you, or some of the readers of your paper, what the difference can be in the milk stated above—why one kills, the other saves, and whether any thing can be added to the first mentioned to make it nutritive instead of deadly, or what can be used as a substitute when the last mentioned is not to be obtained?

John Beach.

East Kill, Greene Co. March, 1838.

Madness in Hogs.

Mr. Tucker—Some time in July 1837, I observed my hogs were seized with *symptoms of madness*, and died daily. I lost some 15 or 16 head of very fine shoats. A neighbor passing one day, observed that it was the effects of *green buckwheat*, to which they had recourse. I closed my fences, and since that time I have lost no more hogs.

Believing that the above is not generally known, and also that it may be of utility to the agricultural community, you are at liberty to publish it in your valuable paper.

Yours respectfully, Wm. McCaughey.

Wayne County, O. March 31, 1838.

Manufacture of Beet Sugar.

An address was delivered in this town a few days since, on the subject of manufacture of Beet Sugar, by Mr. Childs, who has spent some months in Europe. He alluded to the German method, lately discovered, which has been patented in every country in Europe. Some of our shrewd, ones went to work, and the result of their "experiments" will be found in the Hampshire Republican which accompanies this. Yours, &c. H. Ferry.

Northampton, April 15, 1838.

The German improvement over the French method of making beet sugar, a patent affair in Europe, consists *simply in drying the beets*, which are then reduced to a powder by grinding, and changed into a decoction by adding water. The experiment has been thoroughly tried by Mr. Zachariah Wilder, of this town, which resulted in *complete success*. Mr. W. by this process, which, we understand, is as simple as that of making a cup of tea from aromatic herbs, has succeeded in extracting *ten per cent of sugar from the crude beet*—and he is confident that at least *twelve per cent* can be obtained at another,

experiment. For his efforts in prosecuting his experiments to signal success, Mr. Wilder deserves the unqualified thanks of the agricultural world. The result of his labors will give an impetus to the culture of beets in Hampshire county, which cannot fail to be productive of lasting good. But to the process again. The dried powder of the beet was found to yield its saccharine immediately, as the decotion was found to be as sweet as boiled maple syrup, the moment the water was added to the powder. The means used for the clarification of the decoction were very simple. Animal charcoal and lime were the only agents employed. This eminently successful experiment proves the fact, that the immensely important article of sugar can be manufactured by any intelligent farmer's household, as easily as bread, pies or cakes can be made and baked. A rich garden spot of a quarter of an acre, can produce beets enough to make a thousand pounds of sugar; no heavy capital or incorporated company is required to carry on the business. Every individual can make a pound of sugar as cheaply and as easily as he can make a pound of Indian meal.—This important fact has just been proved.—Now let us look at the amount of sugar brought into Northampton last year. Why, it amounted to *one hannred and seven thousand pounds*, which together with the molasses consumed, would cost over $10,000. This is no inconsiderable sum to be expended by our citizens annually. A dozen resolute farmers, by their *influence* and labors combined, can create that sum from their lands this summer in the culture of the beet. At least, so we think.

Large Crop of Corn.

Mr. Tucker—Please say to the readers of your paper, that from my observations of the White Flint 8 rowed Corn, I think it is at least two or three weeks earlier than most of the varieties planted in this region. Mr. Elijah Humphrey of Caledonia, raised of the White Flint last year, 110 bushels to the acre. The same piece of ground has been planted five years in succession, but was manured well each year.

I will at some early day give my plan for raising bees. I have abandoned the house plan, and would say to those who think of adopting that method, that unless they can take away all the old comb annually, they will not succeed. Oliver Allen.

Wheatland, April, 1838.

Beet Sugar.

David L. Child, Esq., who has lately returned from France, where he had been to obtain information in relation to the cultivation of the Sugar Beet, and the manufacture of sugar from it, made a statement of facts upon these subjects, to the citizens of Northampton, on the 23d ult. He was sent out by a company at Alton, Ill., but for some reason they have relinquished the idea of manufacturing sugar.

The statements of Mr. Child were not so flattering as those made by Mr. Isnard about a year since, but we have no reason to question their truth. He states, that the common price of beet sugar in France is about 8 or 10 cents per pound for brown, or raw sugar, and 17 or 18 for refined or loaf sugar. At this price, the manufacturer realizes large profits. They pay, when they do not raise their own, about $3,00 per ton for beets. In most cases they have farming establishments connected with their manufactories. They produce on an acre from 10 to 15 tons of beets. Wages in France are very low;—for a man 30 cents per day, and for a woman, 16 cents per day—they finding themselves. The protection of government is about 5 cents per pound—equal to our protection and the bounty offered by this State. Within a few years, the price of sugar in France has decreased 6 or 8 cents on the pound. The manufacture was successfully established during the operation of the continental system under Napoleon—a system prohibiting the importation of colonial products—when sugar was fifty cents or a dollar a pound. In 1828, there were 80 manufactories in France, and in 1838, 542 in operation, and 30 more erecting.

According to the French method of manufacturing sugar, only half of the saccharine matter of the beet is crystalized. The whole amount is 10 per cent; five only is obtained. But a discovery has recently been made in Germany, disclosing a process by which the *whole* of the saccharine matter is crystalized; and at an expense not greater than that attending the French method. The beet are dessicated, or dried, by artificial heat; by which process about 80 per cent of their weight is evaporated. The remainder is pulverized, then in some way, dissolved, and the whole amount of sugar is extracted. An agent of the inventor is now in Philadelphia, to sell patent rights to use the discovery.

Now the question is, can this industry be introduced into this country?

If this discovery is what it is announced to be, there can be no question that beet sugar can be manufactured at a profit, in this country, notwithstanding the value of labor. If it can be made in France with great profit at prices for sugar named above, when only about 5 per cent. of saccharine is obtained from the beet, we certainly can manufacture it, to compete with our market prices, if 8 or 10 per cent, of saccharine can be extracted, without an increase of expense upon the French method.

Sugar is manufactured in France principally in large manufactories, but undoubtedly should the manufacture be introduced to this country, it would be made on a small scale. The farmer would raise his acre of beets, and in the winter, at his leisure, extract the sugar from them. He could do it then profitably, because his labor is worth less in winter than at other seasons of the year.

In regard to the culture of the beet, it may be observed, that it is a crop which does not impoverish, but enriches the soil.—*Hartford Watchman.*

The Berkshire Crop of Oats.

In the New England Farmer of February last, we published from the Berkshire Star, an extraordinary crop of oats on eight acres, averaging 91 bushels to the acre. We soon after received from a correspondent at Hartford some inquiries respecting them, which we promised to answer as soon as we got the necessary information; and for that purpose we wrote immediately to the enterprising farmer, whose answer we subjoin.

Great Barrington, March 15, 1838.

Dear Sir—In answer to your inquiries, the land that the oats grew upon is a gravelly loam, but very little gravel however. In 1830 I put a small coat of barnyard manure on the land;—ploughed and planted it to corn. The year following I sowed it to oats and stacked it down, and put about 1½ bushels of plaster on the oats to the acre. The 3 years next following I used it for pasture. The first year of pasturing I used about 1½ bushels of plaster to the acre. In 1836 I ploughed it shallow, dragged it well, and planted it to corn. I had a great growth of corn, but the early frost very nearly destroyed it. In the spring following I split the hills as usual; dragged it well; about ¼ of the lot is quack land, (we suppose land infested with quitch grass) that I ploughed three times after harrowing, the rest but once. I sowed my oats, 2½ bushels to the acre, and harrowed the quack part well, six times, the other part four times. I sowed 1½ bushels of plaster to the acre immediately after the oats were up. One thing I consider very essential in order to keep land in good heart; when I till I till it well, and when I use it for pasturing, I do not overstock my land with cattle or sheep, in order that my land shall have a good coat of grass left on the ground in the fall, so as to keep the land warm through the winter and serve for manure. The oats weighed 35½ lbs. to the bushel. One thing I would mention, at every time I ploughed my quack land, I applied the harrow immediately after. Yours, with respect,

N. E. Farmer. Jonah A. Hurlbert.

Silk Culture.

From information coming to us from various sources, we are inclined to believe that a disposition to try the experiment of the cultivation of silk has received a new impetus, and is prevailing in various parts of the country with a power from which great results may be expected. The demand for the Morus multicaulis and other valuable kinds of the mulberry has been unprecedented. The importance of the interest begins strongly to arrest the attention; and its actual importance, in our firm persuasion, is not likely to be overrated.

The great cause of discouragement has been the destruction of the mulberry trees by the severity of the winter. Not only has the Morus multicaulis suffered greatly, but likewise the common white mulberry; so that by the unprecedented severity of the two last winters many of the standard trees in Mansfield, Conn. of many years growth, have perished.

An experiment however has been made, which by an improved mode, (for so it must be called,) of managing the plants, avoids the danger of the winter, and obtains an early return.

The land is laid out in furrows four feet apart. In these the plants, the Morus multicaulis, are laid, the roots three feet apart, the roots being covered, and the branches fastened down and covered slightly with mould until they start. After this the covering is to be increased; and throwing up shoots from every bud they will form a hedge, the leaves of which may be used, as soon as grown, for the feeding of the worms. In the autumn the shoots, which will then have formed trees, are to be separated by a spade or some sharp instrument and taken up and deposited securely from the frost. The main roots, after all the shoots are cut from them, are to remain in the ground; and to be covered by turning a furrow upon them each way. These remain for a permanent plantation. The small plants which are taken up, and the shoots which are cut from the main root, may be used for forming a new plantation the ensuing season, and so on year after year. As to the trouble of taking up the plants annually and resetting them in the spring, it is not to be complained of compared with the advantages, which such management promises, and is in a great measure compensated by the facility with which the foliage is gathered from a low hedge compared with the labor of collecting it from high standard trees. As the foliage for the feed of the worms will not be so early in this way as from standard trees, it will be necessary to delay the hatching of the worms. This may easily be done by keeping the eggs in an ice house.

That this plan is practicable, an actual experiment will fully prove; and we give it in the letter, which we subjoin from a gentleman well and most favorably known to the agricultural community from his public spirited exertions, to promote this great and important branch of industry.

—

A circumstance which shows the short space of time required to realize a crop of manufactured silk, from the Chinese or Morus multicaulis mulberry, came under my notice last season, viz: Messrs Cheeney of Manchester, Ct. raised silk at the rate of 50 lbs. to the acre, from trees planted by layers the same spring, in the month of May, which produced silk at the above rate in October, and manufactured by me made a beautiful article of soft, strong, even sewing silk, and put into the market a finished article in the space of seven months from the time the trees were planted, thus proving that it is not necessary for the farmer to wait several years for his trees to grow, before he can realize any profits, as has been the general impression. This tree is cultivated annually, as we do a crop of corn or by leaving the roots in the ground in the manner the sugar cane is cultivated.

New England Farmer. Lemuel Cobb.

Plough deep, and plough but once, where it can be well done.

Plough deep, and if the ground is in a condition that it can be well ploughed, plough but once.

1st. The soil will last longer and produce greater crops, and if winter grain is sown, it will not be apt to be thrown out with the frost.

2d. If there should be a superabundance of rain it will be more quickly absorbed and the top of the ground left drier; and vice versa, if there should be a drouth there will be a greater quantity of soil to retain the moisture.—Thus, deep ploughing is equally beneficial in both wet and dry seasons, guarding against each extreme.

3d. There is so much more soil to nourish whatever is put into the ground, and the crop will be proportionally greater.

4th. Where the ground is ploughed but once, all those seeds that lie upon the surface ready to spring up in weeds, which are so injurious to the grain and troublesome to the cultivator, become turned under so deep that they will not damage the crop as much as they do in the way that ground is generally managed.

See that your ground is all turned over; and whenever the plough is thrown out, back your team and commence at the spot where your plough left the furrow.

Spare no pains to get good ploughs to do the work with. The best I have ever seen, is what is called the half patent. Moses Thompson.

Hudson, March 24, 1838. *Buckeye Plough Boy.*

Corn and Corn Planting.

As the period for corn planting is at hand, it may not be amiss to remind our readers that five acres of land well prepared, manured and tended, will produce more good corn than ten, indifferently prepared, scantily manured, and slovenly cultivated. Than corn, there is no crop which pays better, when its culture is properly conducted, nor is there any which repays labor more grudgingly under opposite treatment, or punishes neglect more signally. With respect to the best manner of culture, the mode and method can be easily and briefly pronounced. Although it will grow in any soil under good management, it delights most in sandy or light loamy soils, and requires that the ground should be thoroughly pulverized before planting, kept clean and well stirred from the time of being planted until laid by. Indeed, if a corn-field be any wise extensive, the harrow, the plough, and the cultivator, may find constant employment during this entire interval, as there is no truth more universally admitted, than that the cleaner the corn-field is kept, and the more open the ground, the greater certainty there is of making a good crop. So great is the difference between the yield of a cleanly tended field, and one that is suffered to grow up in noxious plants, that an indifferent soil which receives proper attention, will produce more than the very best land if neglected. If weeds be permitted to grow up and encumber the earth, they rob the corn plants of the nourishment essential to their growth, keep the ground so hard, that the dews are prevented from sinking into the earth, and are exhaled by the sun without imparting their rich and fertilizing properties to the soil, and thus

is the corn robbed of one of the most powerful agents in promoting its growth, and the farmer deprived to an injurious extent of his profit.

With respect to the *time* of planting, it is impossible in a country like ours, of such variety of climates, to fix upon any particular period; a few hundred miles make a difference of five or six weeks; for while the planter in the south in many parts can get in his corn in the beginning of March, or earlier, those of the north cannot do so till the middle of May, and, indeed, in some instances till June. But though circumstances forbid the arbitrary prescription of a *day*, it may be assumed, as the dictate of prudence, that it is always safest to get it in at the earliest possible period, and we, therefore, recommend to all to seize the first opportunity to get through with their planting.—*Farmer & Gardener.*

PASTURE.

An English writer recommends to mix a few sheep and one or two colts in each pasture for horned cattle. Another says "the following economical experiment is well known to the Dutch, that when eight cows have been in a pasture, and can no longer obtain nourishment, two horses will do very well there for some days, and when nothing is left for the horses, four sheep will live upon it; this not only proceeds from their differing in their choice of plants, but from the formation of their mouths, which are not equally adapted to lay hold of the grass. New grass, stocked very hard with sheep will unite and mat at the bottom, and form a tender and inviting herbage. In North Wiltshire, (famous for cheese) some dairymen mix sheep with the cows, to prevent the pasture from becoming too luxuriant, in the proportion of about one sheep to a cow.

"The bottom of an old hay stack is estimated an excellent manure for pasture land, as besides the nourishment it affords, in contains a quantity of grass seeds, which furnishes a new set of plants. It should never be suffered to mix with manure for grain or corn lands, as it will cause them to be overrun with grass and other plants, which though useful in a pasture, are weeds in arable land."

Potato Bread.

It is stated in a late number of the French '*Bulletin des Sciences Agricoles*,' that 4½ lbs. of the flour of potatoes, or starch, and ten pounds of good wheat flour will produce when mixed and made into bread, as nearly as possible, 25 pounds of bread, or six full weight quartern loaves. The leaven is prepared in the usual manner; but the dough requires to be rather more kneaded in order to make it rise. The same work further says that the dough should be divided into portions not quite so large as usual, and baked in small pans. The oven is left shut for a quarter of an hour, after which it is partially opened for some time, and when the bread has had sufficient time to bake well it is removed. In half an hour it is again placed in the oven, and allowed to remain an hour, the door being left open during the time,—this second baking, it is to be observed, being of great importance to the goodness of the article. The bread made in this way, is described as of excellent quality, and may be kept for eight or ten days without any apparent alteration. Now according to all common calculations, the proportion of household bread made from any given quantity of wheaten flour is as four to three, consequently, 10 lbs. would only yield at the most 13⅓ lbs. of bread; yet we here find that by the admixture of 4½ lbs. of pure potato meal, an increase is obtained of 11⅓ lbs!—*Loudon's Magazine.*

Premium Crop of Spring Wheat.

To the Committee on Agricultural Products and Experiments, of Massachusetts Agr. Society:

GENTLEMEN—In entering a claim for the premium offered by the Trustees of the Massachusetts Agricultural Society, for the greatest quantity of Spring Wheat per acre, and in conformity to the rules of said society, I now state that the field on which my crop was grown the present season, was planted the year previous with corn and potatoes, and for that year was not manured heavy—say with about six cords of good manure ploughed in. As a reason for so doing, I will state that this field had obtained two premiums—one for potatoes, one for wheat. I need not add, perhaps, that when stocked down to grass with that crop of wheat, the soil was well filled with manure. I therefore deemed it unnecessary, if not injurious, to add more than the above amount of manure in the present process, as I have known wheat land to be manured too highly, causing the straw to be heavy and the kernel light. The last week of last April, after the land had been well and deep ploughed, the seed (2½ bushels of the Smyrna or Black Sea Spring Wheat*) was sown and harrowed in across the furrows, the roller following; which finished the duty of the husbandman to this field till harvest, which was completed the first week in August, the grain being cut when the kernel was to the *feel* like India rubber; two days' sun cured it for housing. The crop was threshed in October by horse power, (the machine having been in use a number of years, and the teeth much worn; I judged over a bushel passed through unthreshed and went with the straw, of course not counted in the measure,) winnowed up clean and carefully measured. The amount was 38 bushels and 16 quarts of clean wheat.

Yours, respectfully, PAYSON WILLIAMS.

Fitchburg, Nov. 10, 1837.

* This kind of wheat was imported from Smyrna about seven years since; the largest product on my land was 55 bushels and an item, (for which a premium was awarded,) and has generally done well.

Scratches.

The scratches is a disease which soon places a horse in such a situation as to render him unfit for any kind of service. When it is permitted to run upon a horse for any length of time without any remedy being applied, the ankles and legs swell very much, and lameness is produced in so great a degree, that he is scarcely able to move.

Scratches are produced from many different causes: hard riding, dirty stables, legs left wet at night without rubbing, standing in his manure, or mud, where he is confined in the stall, &c. Although much inflammation may appear, and the disease discover much inveteracy, the cure is not difficult.

Remedies.—No. 1. Remove the horse to a clean stall; with strong soap suds wash his legs and ankles nicely; clean out his feet; then wash every part inflamed or sore in strong copperas water, twice a day until the cure is performed: take half a gallon of blood from the neck vein, and give a mash twice a week, of 1 gallon bran, 1 teaspoonful saltpetre, 1 tablespoonful powdered brimstone. Great attention should be paid to the cleanliness of the stable.

No. 2. After the horse is placed in a clean stall and his legs and ankles washed with soap suds, take of blue stone 1 ounce, alum 4 ounces, to which add half a gallon strong decoction of red oak bark, stir them together until the alum and bluestone are dissolved; then wash the cracks, sores, and inflamed parts, twice a day, and the cure will be effected in a very short time. Light or green food would be preferable to any other, for a horse thus diseased, until a cure is performed.

No. 3. After washing the legs and ankles with soap suds, take one table spoonful powdered brimstone, one do. lard, mix well together and anoint the sores and parts inflamed twice a day. A horse will get well much sooner confined in a stall, than by running at large.

No. 4. Boil poke root to a strong decoction, and bathe the ankles twice a day. In all cases a clean stable will aid you much in making a quick cure of the scratches.

When the last roll of butter is almost gone, the prudent housewife feels the importance of procuring as much good butter as possible from the cream that has been collecting, for a week or more perhaps from the milk of one cow, and thus she will churn the usual length of time with careful management, yet it will sometimes happen that the butter (as the phrase is,) will not come, and she may churn for several hours and there will apparently be no change, the particles of butter remaining perfectly disunited.

The writer of this article has recently been in a similar dilemma. I feel a wish to inform my sister butter-makers the means I used which so successfully removed the difficulty. I churned perhaps three hours to no purpose, and then tried to think of some remedy that I had read in the Indiana Farmer, or some other periodical, I could not remember precisely, but I recollected the reason stated, was the cream being too sour; I then thought of soda, (pearl-ash I presume would do as well), and dissolved a large teaspoonful in a pint of warm water, and as I poured it in, churning at the same time, it changed in a moment and gradually formed into a beautiful solid lump of sweet butter.—*Indiana Farmer.*

Splendid new Flower Seeds.

IN addition to our large assortment of Flower Seeds raised in this country, we have just received direct from London nearly one hundred choice varieties, consisting mostly of new and beautiful Annuals of late introduction. These will speedily be put up in small papers, and sold in packages of 20 varieties for $1, or 50 varieties for $2. REYNOLDS & BATEHAM.

Rochester Seed Store, April 28, 1838.

Just Published,

A CATALOGUE of Garden. Field and Flower Seeds, Green House or Parlor Plants, Agricultural and Horticultural Implements, Books, &c. for sale at the Rochester Seed Store, fourth edition, with practical directions for the cultivation of vegetables and flowers, and the management of plants in rooms—a pamphlet of 60 pages—which may be had gratis on application at the Seed Store, or sent by mail if desired.

apr 28 REYNOLDS & BATEHAM.

Tea Spring Wheat.

A FEW bushels genuine Tea Wheat for sale by REYNOLDS & BATEHAM.

Rochester, April 21, 1838.

Great Arrivals

AT THE ROCHESTER SEED STORE.

WE have received by some of the first boats, *a number of* TONS *in weight* of English and American Field and Garden Seeds, Tools, Books, &c. Our assortment for the season is now full and complete, and we would inform our distant customers and agents, that their orders which have been already received, will be immediately attended to, and the articles put up and forwarded with all possible despatch.

The demand for seeds by wholesale during the winter was so great, that our fall stock of many kinds had become entirely exhausted; but the quantities now received are so great, and the varieties so numerous, that our friends need have no scruples about sending us extensive orders. We are so confident that these seeds will prove genuine, and give the best of satisfaction, that we feel a great degree of pleasure in offering them to the public. And we most cordially invite all who feel an interest in the advancement of Agriculture and Horticulture, to call and examine for themselves.

☞ Catalogues sent gratis to all applicants.

REYNOLDS & BATEHAM,
Nos. 3 and 5 Arcade Hall, Rochester, N. Y.

April 21, 1838.

Seed Store Agencies.

LARGE and complete assortments of Seeds, put up at the Rochester Seed Store, may be found at the following places:

Cleveland, John Williams,
Buffalo, W. & G. Bryant,
Lockport, G. W. Merchant,
Batavia, J. V. D. Verplanck,
Le Roy, M. P. Lampson & Co.
Geneseo, J. F. Wyman,
Mount Morris. R. Sleeper,
Canandaigua, W. M. Chipman,
Geneva, J. & J. N. Bogart,
Palmyra, Hoyt & May,
Oswego, Holden & Vincent.

Of the character of these seeds we deem it unnecessary to say any thing further, than that we believe they will fully sustain the high reputation which this establishment has already acquired, and secure a continuance of the liberal patronage it has hitherto received.

☞ Persons wishing larger quantities or different kinds than can be found at the above places, may leave their orders with the Agents, and the seeds will be sent to them.

REYNOLDS & BATEHAM.

Rochester Seed Store, March 31, 1838.

Extensive Sale of Imported Stock,

At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquiries and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty *Improved Durham Short Horns*, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "ROVER," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by Young Albion; gr. dam, (Lady Sarah) by Pilot; gr. gr. dam by Agamemnon. Also, ALEXANDER, ORION, SPLENDOR and others. And of the Cows and Heifers, BEAUTY, PRIMROSE, own sister to Reformer, PRIZE, LADY BOWEN, BRILLIANT, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare FALCONET, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorceror Amelia, &c.

Bay mare Miss ANDREWS, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare JESSICA, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, HUMPHREY CLINKER, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horses TURK and ALFRED, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by thoir present owner who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.

Niagara Co. Agricultural Society.

The following Address was delivered before this Society, at its formation, on the 27th of February last, by WILLIAM PARSONS, Esq.:

(*Concluded from page* 126.)

I might, and I did intend to call your attention to several other subjects intimately connected with agricultural improvement. Particularly the commercial pressure of the times: and the manner in which relief is to be obtained, viz: the increased, more systematic, and improved cultivation of the soil. Also, that of sheep husbandry, as well as several others. But I have already detained you longer than I designed, and probably till your patience is nearly exhausted. I will therefore close, with some remarks on the natural fertility, agricultural character, and local privileges of our county.

As a county we are blessed with a prolific soil. Every year, with its attendant and gradual improvements in cultivation, the tests that are furnished by time and experiment, go to establish the fact that as cultivators of the soil, our lot has been cast where nature has been unsparing in her bounties, has distributed her choicest gifts, to invite the co-operation of industry, enlightened and improved husbandry. Western New York as a whole, needs not my present praise; her superiority of soil, her facilities for becoming the *garden of the State*, (if she is not already entitled to that enviable distinction) is a conceded point. She now is, and unquestionably must continue to be, the *granary* of the *State*. Among the counties that go to make up that geographical distinction, where has Niagara a superior? I venture the affirmation, not boastingly, but with a full conviction of its truth, that if she does not now hold rank with the first, it is because her agricultural resources have not been developed by time and thorough cultivation, to the degree that others have. She has the means of arriving at that comparative state of perfection, if she has not already attained it. Add to natural advantages here, but a portion of that well directed and well informed labor, and a fraction of the time that has gone to establish the claims of older counties to pre-eminence and distinction; and who will call these positions in question? I have spoken of the tests that are furnished by time and experiment. This is strictly applicable to our county. Much of it was in a state of nature forbidding and discouraging; our wet swail lands especially; and I well remember, that my own impression, when I first became a resident here sixteen years since, was against the ultimate, successful cultivation of this class of lands. But time and experiment have undeceived me. I have lived to see some of the worst portions of these forbidding lands made feasible and valuable; converted into farms that would now bring the highest class of prices. The clearing away of the forest, the admission of the sun, ditching perhaps in some instances, has made them dry enough for successful cultivation. The roots have rapidly decayed, and the plough has most signally developed, a rich, intrinsically valuable and enduring soil. In illustration of these remarks, I may cite much of the south part of this town, Royalton, the greater portion of Pendleton, Wheatfield and Niagara, and many other detached portions of the county—cite you to what they were, within the recollection of many present, and to what they now are. And with reference to another class of lands, which here and elsewhere have been suffered, after the production of a few crops, to become exhausted and only produce a stinted growth of those almost unerring indications of bad husbandry, mullens, thistle and sorrel—a class of lands which more than all others perhaps, owe their renovation and present value to that system which has been sneeringly denominated, "*book and newspaper farming!*" I might cite you to instances within three miles of this village, illustrating not only the position, that the real value of the soil is but progressively developed, but showing also practical experiments that triumph over our prejudices, against what we denominate and too often discard as innovations. One instance in particular—one of the oldest improved farms in the county—eight years ago it had been lying almost idle for as many preceding years. It was exhausted and had been suffered to remain so for years, producing perhaps not a sufficient surplus to pay the annual taxes. Its poverty, and barren appearance, would almost have authorized the conclusion that *gratuitous possession* would have been *misfortune*. It went into new hands—into the hands of one who had in despite of prejudice, looked into a book or agricultural paper, to learn something about farming—who did not perhaps surrender one particle of his own judgment, but simply subscribed to the plain and palpable dictate of common sense, that *collective* is better than *individual* wisdom—that farming is a science as well as a handicraft, and demands the aids of scientific investigation, as necessary to its successful prosecution. He read of what plaster and clover, judiciously combined, had done—of what had been done in the way of "innovation" upon the old plan of cropping and exhausting, without replenishing; and he put his reading into practice. I would ask no better argument of what has been done of late years, in the spread of agricultural improvement, in favor of "*book farming*." (if the objector chooses the term) than that very farm furnished the past season; by the ample returns it was giving to its enlightened and public-spirited cultivator. And it was pleasing to observe as I have in passing through the neighborhood that this "book farming," was catching or endemical at least, for it had spread from this example, had triumphed over prejudice, and was working in the immediate neighborhood, not agricultural miracles, but agricultural reform, such reform as we may safely anticipate will be communicated more generally if the objects of this association are kept in view and zealously pursued.

We are favored with a *grain growing district*, and if not as peculiarly fitted for darying and grazing, it is my opinion, offered with deference to the opinions of others, that we have only to take advantage of the established adaption of our soil to the cultivation of roots, that Niagara may become as famed for her good beef, pork, butter and cheese, as she *is*, for the quality of her wheat. For much of these articles we are now dependant upon neighboring counties. upon those who in fact do not naturally possess more of the elements for their production than we do ourselves. Who that has tasted the quality of our fruits, the apple, pear, peach, plum, cherries, &c., has witnessed with what ease they are produced, the rapidity of their growth—is not impressed with the conviction that we are peculiarly favored in this respect? The productions of our gardens, placed beside those of other districts of country, where much more labor and expense is expended in this department of rural economy, would speak volumes in favor of our soil. We have not only the soil that invites and encourages to industry and enlightened agriculture—that gives abundant returns for all that industry expends upon it, but we have also the next thing of importance to the agriculturists, a good market—all the desirable facilities for a ready sale of all our surplus produce and at good prices. One two sides of us we have navigable waters, with the Erie canal through the centre, and along our south-west border. There is not probably a farmer in our county who cannot take his produce to a cash market, going and returning the same day, and a large proportion of them may make two trips. There is not probably a district of country in the United States, that for fifteen years has enjoyed as uninterruptedly a good cash market for its staple produce as well as for its minor productions, as has the county of Niagara. Blessed with such a soil, such a market, with such natural advantages, shall we forego them by neglect? Shall we fold our arms in supineness and indifference and let less favored regions avail themselves of the improvements of the age, and become superior to us in scientific agriculture, bear off the palm that is now within our reach? I have too much confidence in, and am too well apprised of the enterprising character of my fellow citizens to doubt that now when something in the cause of improved agriculture is so auspiciously commenced, that we shall not press forward to the accomplishment of all that may with zeal and well directed efforts be secured.

But after all these considerations, one subject further should not be forgotten. We may possess the most prolific soil—we may cultivate that soil with the most profound agricultural skill, and with persevering industry—yet we should remember, that after all these, our dependence for success, is on the blessing of Him who hath said "Summer and Winter, seed time and harvest shall not fail." When we have properly prepared the ground, deposited the seed, and enclosed well the field, let us with humble confidence, look to Him, whose prerogative it is to cause the warming influences of the sun, and the gentle showers of rain. And when we have gathered in the abundant harvest; and our barns and store-houses are filled with plenty; shall not our hearts be filled with gratitude and thanksgiving to our beneficent Benefactor from whom all our blessings flow?

Root Cultivation.

A LARGE supply of new and genuine Ruta Baga, Mangel Wurtzel, Sugar Beet and Orange Carrot Seed, just received at the Rochester Seed Store.

REYNOLDS & BATEHAM.

Rochester, April 21, 1838

Improved Durham or Short Horn Bulls.

THE subscriber has several yearling bulls of this very choice breed for sale, from direct imported stock; also, one half Devon and Durham do. A. B. ALLEN.

Buffalo, April 3d, 1838. ap 14-6w

New Onion Seed.

YELLOW Dutch, Large Strasburg, White Portugal and Large Red Onion Seed, the growth of 1837, just received direct from England.

The crop of Onion Seed was almost a total failure in this country last season, and being unable to obtain a supply of NEW SEED in the United States, we last fall sent an order to England for a supply from that country. It has arrived in fine order, and we are confident will prove a superior article.

REYNOLDS & BATEHAM.

Rochester, April 21, 1838.

Improved China, Berkshire and Tuscarora Pigs.

THE subscriber expects in the months of May and June, several litters of the above superior animals. The price of the Chinas, at 6 weeks old, per pair, will be $10 00

Berkshires and Tuscaroras, " " " 12,00

and for every month added to the above age of pigs, $1,25 will be charged on the price of the former, and $1.50 on the latter. These hogs are universally admired wherever known, and are considered the choicest and best breeds of England and America, returning the farmer a greater amount of pork for their feed than any others, and therefore the most profitable stock that can be kept.

The Improved Chinas are celebrated for the sweetness and delicacy of their meat, are easily kept fat in pasture without other food, being perfectly quiet and not wandering at all; are very handsomely spotted, a clear black and white, the colors about equal; have small short heads, ears and legs, with deep and broad bodies, and weigh from 300 to 400 lbs. according to keep at eighteen months old. There is nothing equal to these boars for crossing with other hogs, as they reduce their long coarse heads and legs, and give breadth and depth to their carcase quicker than any other kind. They have no affinity to what is commonly called the Grass breed of hogs, being of a distinct race, & entirely superior every way.

The Berkshires are highly prized for their lean, tender and juicy hams, are darker spotted than the above, and will weigh at the same age from 4 to 600 lbs.

The Tuscaroras are a cross of the China with the Berkshire and other superior breeds, have nearly the quietness and aptitude to fatten with the China, are of the same color, and weigh equal to the Berkshires. A. B. ALLEN.

Buffalo, April 31, 1838. ap 14-6w

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

apr 15-tf

N. B. CASH will be paid for a few thousand two years old APPLE TREES

Superior Garden & Agricultural Seeds.

THE subscriber has now on hand a full supply of Garden and Field Seeds, growth of 1837, among which are the finest Cabbages, Cauliflowers, Broccoli, Radishes, Peas, &c. that are cultivated in England, France, and Holland, together with every sort that can be raised to advantage in our own country, and which are grown expressly for my use from stock furnished and raised by the most experienced gardeners in this country; in short, every article emanating from my store, warranted genuine and fresh.

Also, Skinless Oats, Potatoe Oats, 44 lb. weight to the bushel, Perennial Rye Grass, White Clover, Lucerne or French Clover, Orchard Grass, Herd's Grass, White Mulberry, and Yellow Locust Seeds, Spring Tares or Vetches, genuine Mangel Wurtzel, and Ruta Baga and Field Turnep Seeds, also Italian Spring Wheat, well worth the attention of Farmers.

Wholesale Dealers supplied on accommodating terms. Price lists, by the pound and bushel, furnished on application, as also catalogues of my whole collection, gratis.

Flower Roots, Bulb Glasses, Green-house Plants, the best Books on Gardening, &c. at various prices, Bird seed of every sort, Pearl Barley, Oatmeal, Embdon Grots for Gruel, Split Peas, White and Brown Mustard Seed, Garden Flower Pots and Garden Tools, Russian Bass Mats.

The Flower Seed department embraces the choicest variety to be found in this country, in which are included choice double Dahlia Seed, Carnation and choice Pinks, German and China Asters, splendid Double Balsoms, with an addition of several new varieties, accompanied with a printed direction for culture and management.

Orders will be punctually attended to and carefully packed and forwarded as directed, but as the collection of distant debts are often troublesome, and sometimes impracticable, it is desired that satisfactory reference be made to persons in Albany, when the order is not accompanied with the money.

☞ Also, SEED CORN.—The subscriber has a quantity of the celebrated 12 rowed Dutton Corn; the advantages of raising this corn are its prolific qualities.

W. THORBURN, Seedsman,

Sign of the Plough, 317 N. Market st. opposite Post Office.

Albany March 17 1838. mar24

Monroe Horticultural Garden & Nursery,

SERIES, GREECE, MONROE CO., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.